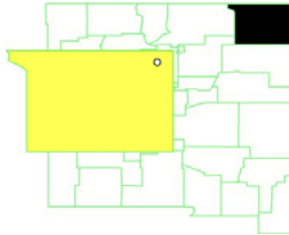


**LEE ACRES
LANDFILL
(USDOJ)
NEW MEXICO
EPA ID# NMD980750020**



**EPA REGION 6
CONGRESSIONAL DISTRICT 03
San Juan County
Farmington**

Updated: July 2004

Site Description

- Location:**
- 4.5 miles east of Farmington in San Juan County.
 - Public land under the authority of the Bureau of Land Management (BLM), Department of the Interior (DOI).
- Population:**
- In 1990 San Juan County had a population of about 100,000 people, Farmington 33,997 persons, and the Lee Acres Superfund Site approximately 600 individuals. At one time, approximately 165 single family residences used shallow alluvial ground water for washing and irrigation. They are now using bottled water.
 - 561 people live within a 3 mile radius.
- Setting:**
- This is a Federal Facility - Department of Interior/Bureau of Land Management
 - The Lee Acres Superfund Site consists of a 60-acre closed landfill. There is an abandoned refinery and a residential subdivision 2,200 feet south of the site.
 - The landfill was acquired by San Juan County in 1962 through a lease agreement with BLM for a municipal landfill consisting of solid waste trenches.
 - In 1978 San Juan County began to accept liquid wastes for disposal in three unlined waste lagoons. The wastes were primarily from oil field operations.
 - BLM instructed San Juan County to close landfill in September 1985. BLM resumed unrestricted ownership in 1990.
 - 134.68 acres of public lands were withdrawn from surface entry and mining according to Federal Register: January 15, 1997, Number 10, Page 2177.
- Hydrology:**
- Two aquifers are present. The alluvial aquifer at 20-50 feet and the Bedrock aquifer at 50-80 feet. Only the alluvial aquifer is contaminated.

Present Status and Issues

- EPA and the BLM have finalized the Record of Decision and the Federal Facility Agreement and are being routed for signature.
- EPA and NMED have completed the review of the Remedial Design and provided comments to BLM.
- A meeting was held with EPA, BLM, and DOI top officials in Washington D.C. 7-8th to resolve the outstanding issues associated with the Federal Facility Agreement. Language was agreed upon for the Agreement and two letters from EPA, addressing specific concerns from DOI/BLM were agreed to be developed.

- The San Juan County Highway Department is negotiating a plan with BLM/DOI to construct a highway on, or near the site property. EPA will be participating in the planning process, to ensure that the highway construction and road will not interfere with the site remedy.

Wastes and Volumes

PRINCIPAL POLLUTANTS:

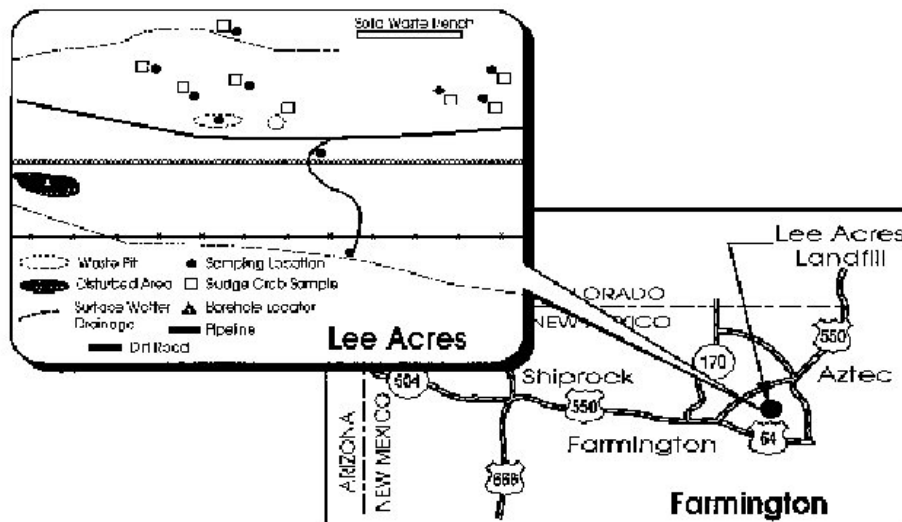
- 1,2-cis-dichloroethene (1,2-cis-DCE);
- 1,2-trans-dichloroethene (1,2-trans-DCE);
- tetrachloroethylene (PCE);
- trichloroethylene (TCE);
- vinyl chloride
- manganese
- nickel

- VOLUME:
- The total volume of the manganese plume was approximately 5.3 million gallons.
 - In 1999, the estimated volume of VOC contaminated ground water was 600,000 gallons.

Site Assessment and Ranking

NPL LISTING HISTORY
Site HRS Score: 37.01
Proposed Date: 6/24/88
Final Date: 8/90
NPL Update: No. 7

Site Map and Diagram



The Remediation Process

Site History:

- In May 1962, San Juan County began to operate an unrestricted, 20-acre landfill for solid waste disposal.
- In 1978, liquid wastes from all sources were accepted and placed into 3 unlined surface lagoons.
- In 1980, an additional 40-acres were leased by the County.
- In 1985, toxic vapors, primarily hydrogen sulfide, caused 15 people to become ill. The Governor ordered the National Guard to secure site perimeter. San Juan County filled in the lagoons and fenced the site.
- In 1985, the New Mexico Environmental Improvement Division (NMEID) hired contractor to treat the lagoon contents to prevent further release of gases.
- In 1986, ground water, contaminated with benzene, was noted in the Lee Acres housing area south of the landfill. BLM authorized an alternate water supply and completed hookups in 1987.
- EPA issued a General Notice Letter to Giant Refinery and San Juan County on May 2, 1991. On December 27, 1993, an additional 371 General Notice Letters were distributed.
- EPA issued a Special Notice Letter to DOI/BLM to draft Federal Facility Agreement on August 8, 1991.
- Technical Memorandum of Understanding among EPA, NMED and BLM was signed in April 1994.
- Revised Remedial Investigation Report was completed and approved by EPA and NMED in April 1995.
- Revised Feasibility Study was approved by EPA and NMED in April 1996.
- Proposed Plan was approved by EPA and NMED on September 16, 1996.
- Proposed remedy is Natural Attenuation with monitoring for ground water. For the landfill proper, the proposed remedy is capping of the west 20-acres with the Capillary Barrier and ground water monitoring of landfill's eastern 40-acres.
- Discussion began on the Federal Facility Agreement (FFA) in September 1994. Agreed to postpone FFA discussions. Discussion on FFA resumed in December 1996. A draft FFA was proposed in November 1997. DOI has requested that DOJ advise on the terms of the FFA.
- The Secretary, Department of Interior, must approve all decision documents, i.e. RI/FS,

Proposed Plan, Federal Facility Agreement, and an Access Agreement with Giant Refinery.

- Fencing of the site and treatment of the lagoons, as well as the other activities on the Lee Acres Landfill site, have reduced the potential for exposure to contaminants while the site awaits further cleanup activities.
- BLM prepared a Revised Remedial Investigation Report (RRI) that was approved by EPA and NMED in April 1995.
- A draft Feasibility Study was received in June 1995. It was approved in April 1996.
- In the Fall of 1996, several geoprobe holes were drilled in the expected "hot spots" in the lagoons to define the area of contamination. Specific "hot spots" could not be delineated.
- BLM and the Department of Energy signed an agreement to allow the Sandia Laboratory (DOE) to place a pilot "Low Permeability (Capillary Barrier) Cap" over a 1-acre portion of the landfill. It is an innovative technology that, if successful, can be used in all arid environments. This cap involves easier installation, less initial cost, and lower maintenance cost than a regular landfill cap. The pilot study began in August 1997 and was completed by March 1999. Data from 4 quarters indicates the cap is performing better than expected even though 1998 has been an exceptionally "wet" year.
- In February 1998, EPA assisted in the presentation of the RI/FS, Proposed Plan, Record of Decision, and Federal Facility Agreement to the new Director, Bureau of Land Management, and key members from Department of Interior.
- After a little over three years of monitoring its effectiveness, the pilot project for the capillary barrier cap was declared a success by BLM in 2000.

Other Environmental Risks:

- The ground water and solid waste sludge are contaminated with low concentrations of volatile organic compounds (VOCs), primarily dichloroethylene and benzene. High concentrations of manganese, the major pollutant, are also present. VOCs, other than benzene, have been found in a residential well, but below drinking water standards.
- A release of hydrocarbon constituents, benzene, etc, was found in the Lee Acres Subdivision. Free phase products, gasoline and diesel, is present in the Alluvial Aquifer and is being remediated by Giant Refinery.

Record of Decision

A Record of Decision is being finalized and is expected to be signed in 2004.

- The proposed remedy is a cap over the landfill area, natural attenuation of the ground water plume, and ground water monitoring.

Community Involvement

- Outreach Activities: BLM responsibility
- Community Relations Plan: 5/89
- RI Activities: Local officials briefed 9/88; BLM fact sheet 10/88; BLM public meeting 11/88; BLM fact sheet 1/89; BLM fact sheet and meeting 2/90; update 4/91, 6/94, 1/96.
- The Proposed Plan was distributed in July 1996. No citizens attended the meeting on the Proposed Plan.
- Citizens on site mailing list: 63
- Constituency Interest: Predominately concerned with impacts to race track and the San Juan River.
- Site Repository: Farmington Public Library, 100 West Broadway St., Farmington, NM 87401

Technical Assistance Grant

- Availability Notice: 3/89
- Letter of Intent: None
- Grant Award: N/A
- Current Status: Federal Facility

Contacts

- **Remedial Project Manager (EPA):** Sai Appaji, 214/665-3126, Mail Sta. 6SF-LT
- **State Contact:** Robin Brown, NMED (505) 827-2434
- **Community Involvement (EPA):** Sai Appaji (EPA) 214-665-63126 Mail Code: 6SF-LT
- **Attorney (EPA):** Mike Barra, 214/665-2143, Mail Sta. 6RC-S
- **State Coordinator (EPA):** Kathy Gibson, 214/665-7196, Mail Sta. 6SF-LT
- **Prime Contractor:** N/A

Cost Recovery

- PRPs Identified: Department of Interior/Bureau of Land Management, and San Juan County.

Benefits

- The pilot landfill cover has been in place for more than three years and has been declared a success in meeting its intended goals.